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disrupt or [die]

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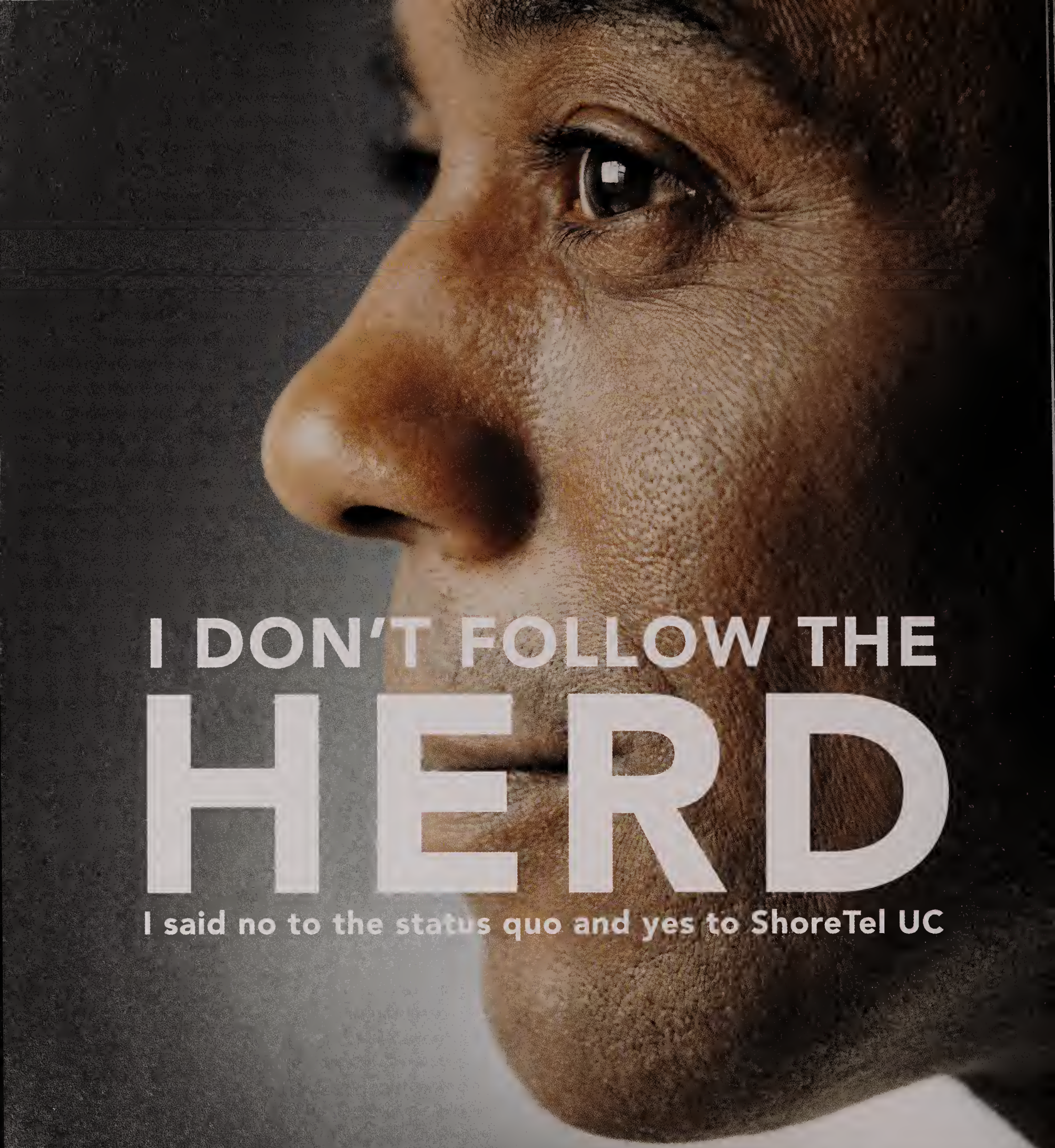

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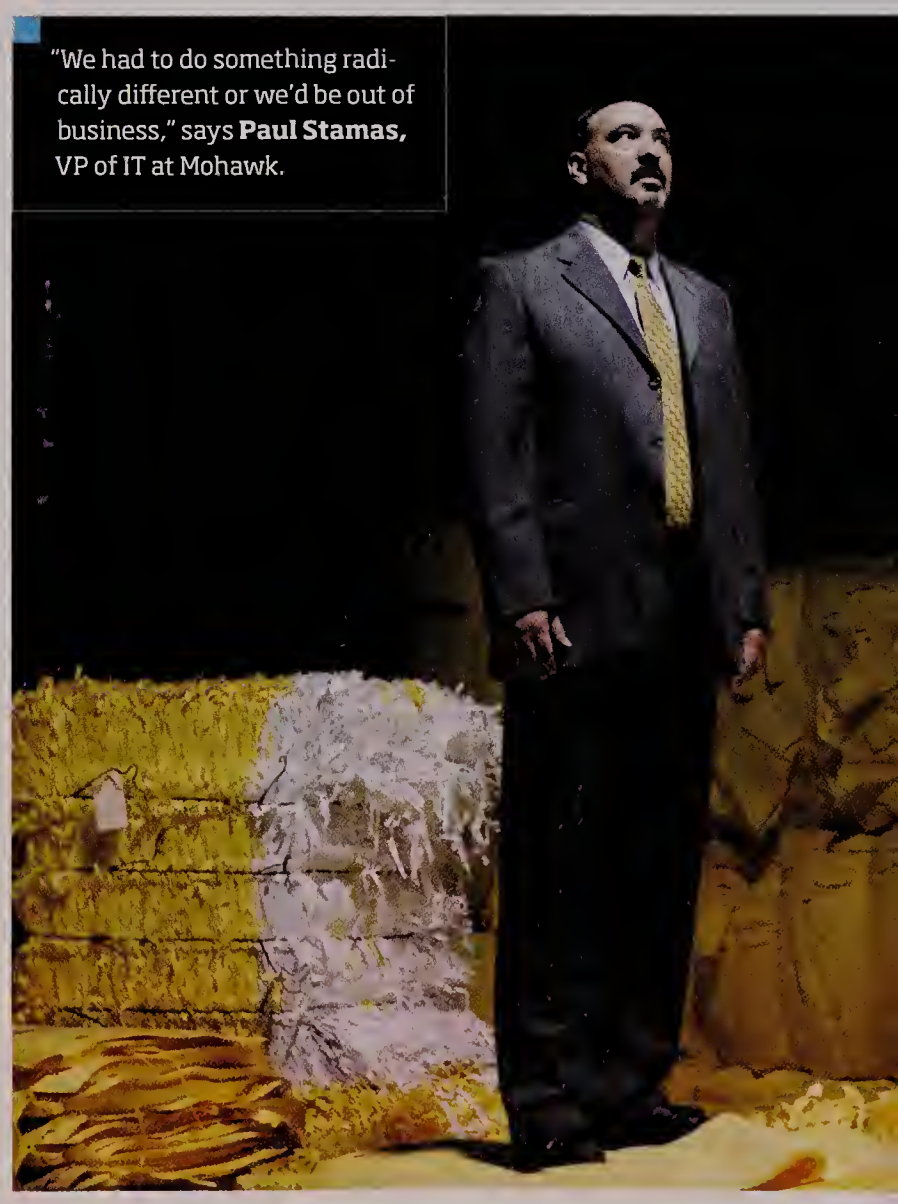
COVER STORY Your company's business model is threatened from inside and out. What should CIOs do about that?

BY KIM S. NASH



"We had to do something radically different or we'd be out of business," says **Paul Stamas,** VP of IT at Mohawk.

start

FROM THE
EDITOR IN CHIEF

Evolution Mandate

Develop entrepreneurial spirit. Incubate new businesses. Borrow ideas from other industries. Barrage the marketplace with innovative products.

If that list sounds like a load of business-school babble to you, consider the real-world example of a company once called Mohawk Fine Papers (now known just as Mohawk), which is doing all of the above to great effect.

In a world gone digital, a company whose very name signalled "business model in trouble" is staving off obsolescence by deliberately disrupting its revenue model. "We had to do something radically different or we'd be out of business," says Paul Stamas, VP of IT at the paper manufacturer. "You can't walk away from who you are or what you did, but you need to evolve."

The dire necessity of business evolution—and the critical impact CIOs can have on that process—is the focus of our "Disrupt or Die" cover story (Page 16). Managing Editor Kim S. Nash uses examples of well-known business models under siege (Avon, Netflix and Best Buy) to underscore the point that IT plays a more central role than ever before in the rise and fall of almost any company.

"CIOs need to heed the law of the business jungle: Disrupt or be disrupted," she writes. "It's a familiar pattern—disrupter moves in, flies high, then becomes disrupted as markets and technologies evolve. Competitors emerge from unexpected places."

While fine-tuning business processes delivers laudable results for IT leaders in the short term, that work rarely positions your company to make any dazzling leaps into new businesses. CIOs are overly fond of best practices, which are, by definition, tried-and-true, not innovative.

One compelling example in our story highlights how pharmaceutical giant GlaxoSmithKline (GSK) is looking outside its own industry to partner with big-data experts at UK-based McLaren Group, a collection of high-tech companies best known for Formula 1 race car engineering. GSK plans to leverage McLaren's predictive analytics tools to make faster decisions about drug inventory and pricing.

Another interesting story is unfolding at OfficeMax, where bigger rivals like Staples and Office Depot are no longer the main focus. As players like Target and Amazon invade the office-supply space, OfficeMax's chief digital officer now thinks more broadly about competitors. "We're all just a click away from each other," he points out. "We have to pick our game up."

Disrupt or die.

Maryfran Johnson, Editor in Chief, *CIO* Magazine & Events
mfjohnson@cio.com

CHATTER

Are 'Cloud Careers' Real?

Cloud computing may deliver cost savings, scalability and production gains, but **how is the tech job market actually changing?** Senior Online Writer Richard Hein reports on the latest from the career experts at Foote Partners, who are rethinking the definitions of cloud jobs beyond the usual roles for **engineers, analysts and developers.** CEO David Foote, co-founder and CEO of Foote Partners, says the biggest area of development for new jobs may ultimately be in-house cross-training between various IT skill sets. www.cio.com/article/723484

Perks of Coworking

Coworking is when a collection of people (usually knowledge workers) from **different companies** share a large space that has **Internet access and power.** Contributing Writer Matthew Heusser tried it out firsthand at The Factory, a coworking space in Grand Rapids, Michigan, where memberships cost from $20 a day to $275 a month for your own desk and mailbox. The emphasis on **community and social connection** between coworkers leads to idea-sharing and network-building, Heusser found. www.cio.com/article/723109

Social CRM Struggles

Will complaining about a well-known brand on Twitter make a difference in customer service response? Contributing Writer Ashley Verrill conducted **"The Great Social Customer Service Race"** to find out–but many of her experimental tweets to 14 leading consumer brands went **unanswered.** Companies are **not doing enough with their CRM systems** to use social media for listening to customers. www.cio.com/article/723278

Compiled by Staff Writer Lauren Brousell. Have a comment about a story in this issue? Go to *www.cio.com/issue/20130201* or write to *letters@cio.com*.

PHOTO BY ANDRÉA WINCHENBAUGH

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FROM THE **CEO**

Startup Mania

Are we in a tech bubble? Pundits and market-watchers have been batting that idea around lately, focusing on the poor stock performance of once-dazzling social-media innovators like Facebook, Zynga and Groupon.

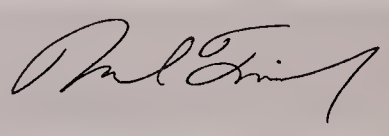
Yet while some venture capitalists are growing wary of the tech sector and the unsustainable valuations of certain consumer-focused startups, others, like Marc Andreessen, dismiss those concerns as more of a "tech depression" than a bubble. At an investor conference in mid-December, Andreessen castigated his fellow pundits for their gloomy predictions about longtime enterprise tech leaders (such as HP, where Andreessen serves on the board). Well, good for him. Enterprise tech will never be as glamorous or sexy as consumer tech, but it still makes a pile of money for this industry. In fact, IDC (our sister company) predicts a 5 percent to 7 percent increase in overall tech spending this year.

And Wall Street always follows the money. Witness the venture capital flowing into enterprise-focused startups. Companies like Splunk and Fusion-io have had very successful IPOs for their data indexing and software-defined storage solutions, respectively. Others, like Box, IO, Nimble, GitHub, MapR, Delphix and Cloudera, are raising millions in capital to bring enterprise-class solutions to the CIO market. Most of these companies are focused on the hottest areas of technology—mobile security, data analytics, cloud applications or virtual data centers and networks—and their biggest selling points are based on saving money within IT capital budgets or driving new revenue.

Investing in these cutting-edge technologies could lead to incredible rewards, but they come with incredible risks for CIOs. Your reputation is on the line every time a new product is rolled out to the enterprise.

So how can CIOs take advantage of startup mania without ending up in survival mode? The smartest ones I talk to look deeply into the new company's financial position (of course) but also investigate what percentage of the its revenue goes toward R&D. They talk firsthand to the big reference customers and check into the experience and reputations of the founders. They also inquire about what might happen if one of the industry giants acquires this bright, shiny startup.

I'd love to hear more about how you're working with startups these days. Drop me a line anytime.



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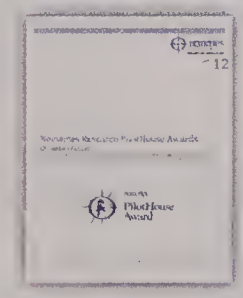
from analysts and media



helping you reach a conclusion

Choosing a contact center solution can be a challenge as you sort through all the information being provided by various vendors. Obviously, all those solutions aren't the same. Functionality, architecture, and total cost are some of the variables that can impact the success of your project. Where can you get reliable research to help with your choice? What do the independent analysts who follow this market segment have to say? We invite you to see. RELY ON RESEARCH from the industry experts.

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46 Application projects slated for 2013.

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*Average per F1000 CIOs

IT BUDGETS ARE MASSIVE

41% of annual IT spending is devoted to application projects in 2013.

*Average per F1000 CIOs

86% of CIOs agree:

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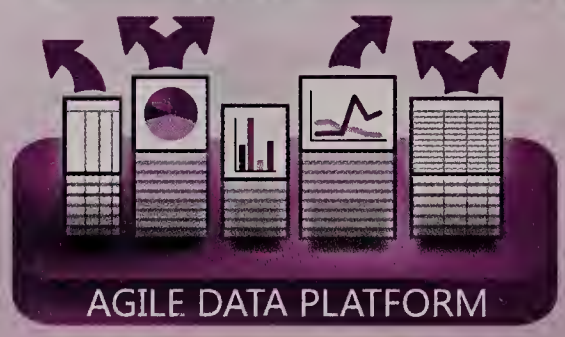

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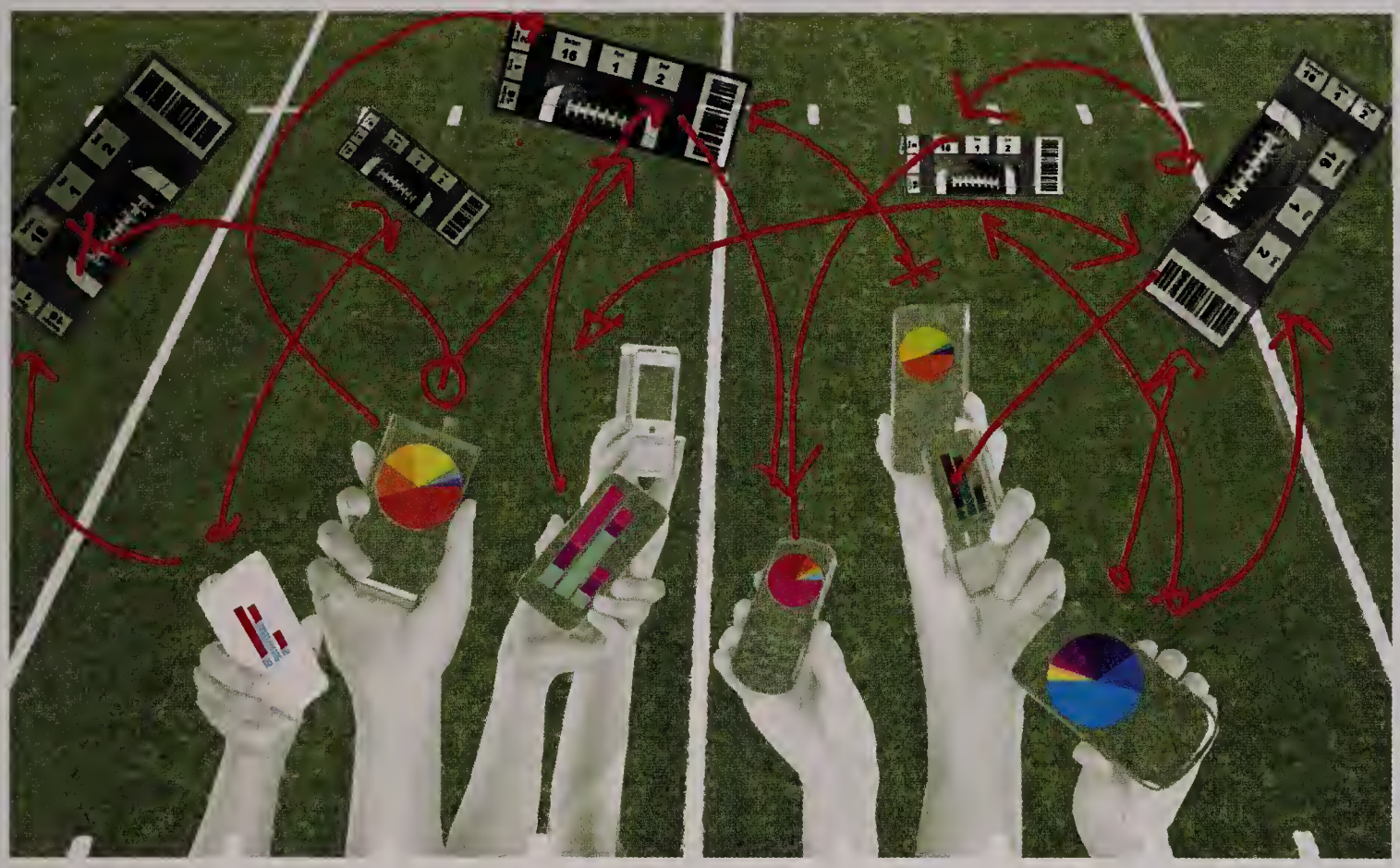
Source: IDG Research Survey, October 2012.
108 responses from CIOs, CTOs, Executive VP, and CSOs.



A Winning Playbook

Sports franchises exploit mobile and analytics to improve the customer experience and drive sales

BY KIM S. NASH AND LAUREN BROUSELL

The Green Bay Packers organization knows that a winning football team and the iconic Lambeau Field are enormous fan draws. But even a storied team with 100,000 people on a waiting list for season tickets feels the effects of competing with TV and the Internet. "Whether we like it or not, we're in competition with all the things that give people a choice to stay home when it's 15 degrees in December," says Tim Connolly, vice president of sales and marketing for the Packers.

CIOs can learn much about customer experience from sports organizations that use mobile and analytics technologies to keep fans happy and understand them better, says Bill Thomas, founder of Centric Performance, a management consultancy.

For example, International Speedway, the $630 million company that owns the Daytona International Speedway and 12 other auto race tracks, recently launched a mobile application to guide fans through the dozens of activities offered during a typical race weekend, in addition to the 250-lap main attraction. "You can't force a customer to experience your business the way you want. ▸▸

61% Companies planning to use social media to sell products directly to customers in the next two years. IBM

ILLUSTRATION BY ANASTASIA VASILAKIS

▸▸▸ **Sports** Continued from Page 7

You have to be flexible," says CIO Craig Neeb.

A key mistake companies make is assuming they know what customers want, Thomas says. They ask, "How can we make customers enjoy the most of what we want them to buy?" Instead, he says, they should find out what the customer needs next, because happy customers are big spenders.

In Green Bay, the Packers have invested in both fan-facing and behind-the-scenes IT, including high-definition scoreboards and a high-end point-of-sale system from NCR, a company that makes payment systems. The NCR system tracks item-level sales at the 129 permanent and portable concession stands at Lambeau. By halftime on game day, Connolly has a report summarizing sales and projecting a total take. A good game will yield up to $1.4 million in food and drink sales.

"You can't force a customer to experience your business the way you want."

–Craig Neeb, CIO, International Speedway

But sales aren't the primary goal, says Connolly. The Packers' sales and marketing group uses analytics tools to assess how concession stands should be reconfigured for the next game, to cut wait times for certain products. Say a full-service food stand sells mainly beer in the 15 minutes before kickoff. Maybe fans in that section would appreciate a portable, beer-only stand so they don't have to wait in line with people ordering bratwurst sandwiches, which take longer to serve.

"People will go to the concession stand more frequently if they don't have to wait in line," Connolly says.

At International Speedway, a focus group revealed fans needed help to get around the Daytona event, held on a 440-acre campus. Neeb's IT group built an app for iPhone and Android that lets users buy tickets, navigate the property, locate friends and build a weekend events calendar. The app has been downloaded 80,000 times so far, and through it the speedway sold $100,000 worth of tickets for last year's Daytona 500.

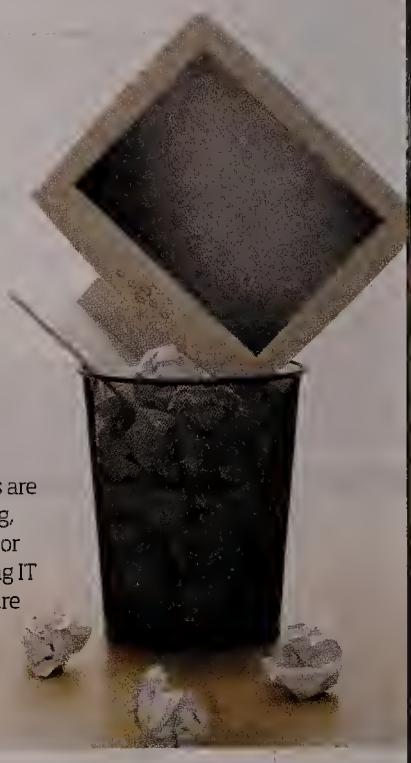
"When a fan has a good experience and they find it easy to navigate," Neeb says, "the propensity to buy is much higher."

Contact Managing Editor Kim S. Nash at *knash@cio.com*. Contact Staff Writer Lauren Brousell at *lbrousell@cio.com*.

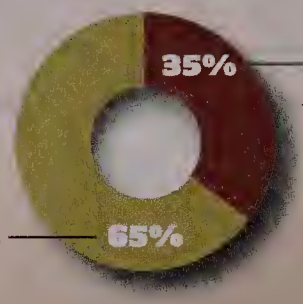
crunch

Tech Recycling Loses Momentum

Not-so-green: Many companies fail to use best practices when disposing of IT hardware, leading to higher costs and legal risks



Companies hiring third-party experts to handle IT asset disposal:



◂ Staffers are trashing, storing or donating IT hardware

SOURCE: IDC SURVEY OF 1,206 COMPANIES, JULY 2012

Three Best States for Broadband

The states of Washington, Massachusetts and Delaware have made the most progress in promoting broadband networks and providing a broadband-friendly business climate, according to a study by trade group TechNet.

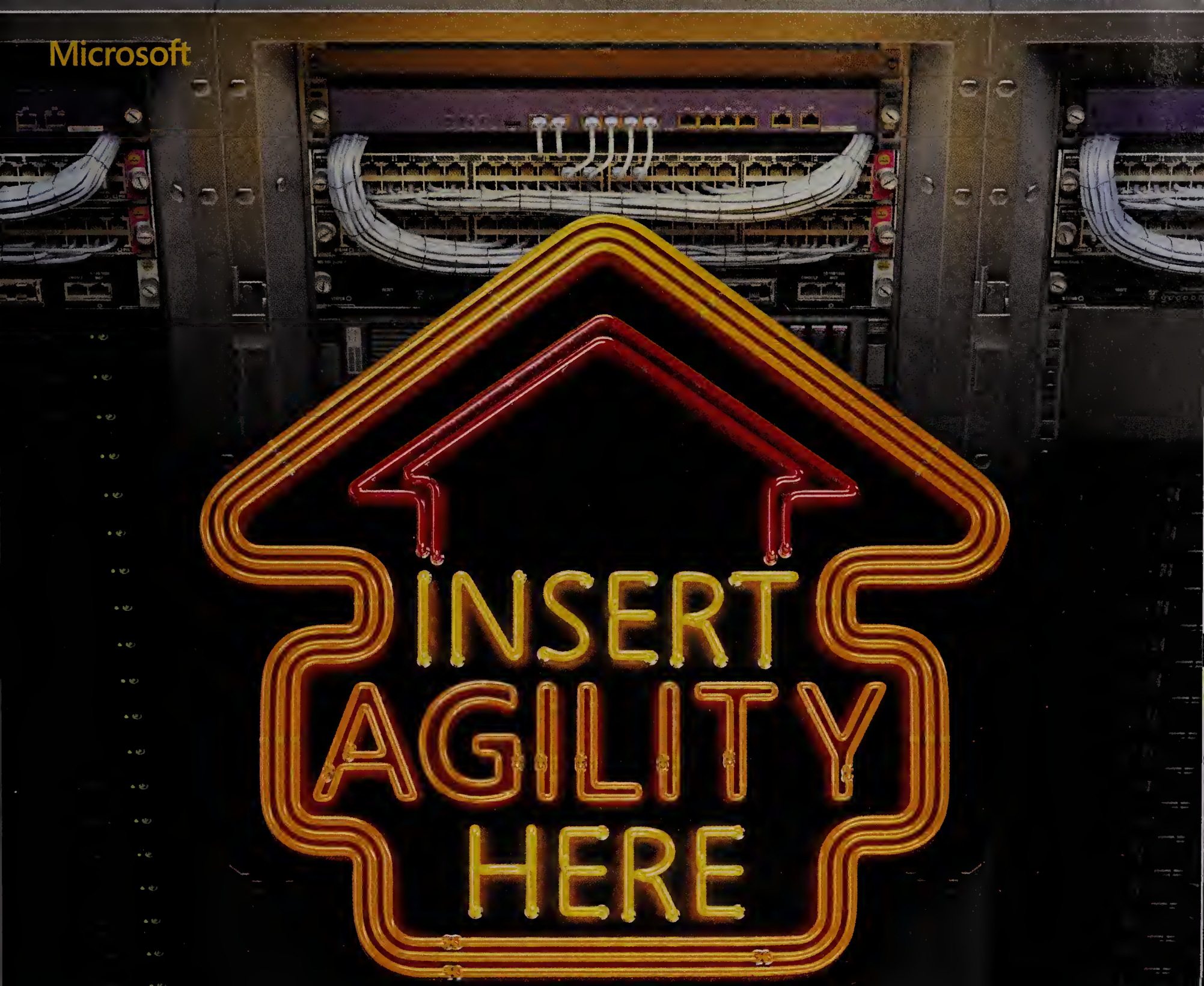
Those three states lead the TechNet State Broadband Index, which rates states on broadband adoption, network quality and tech policies. Maryland and California rounded out the top five states.

The TechNet study points to a connection between an investment in broadband and economic growth. While some states have features that make it easier to adopt broadband, such as concentrated population centers, the study tries to take that into account and rate states based on which ones "maximized what they had," says Rey Ramsey, TechNet's president and CEO.

The study can also help state leaders improve their rankings. "There are a lot of policymakers...who want to do better," Ramsey says. "They want to attract more companies. If you don't have broadband infrastructure, you're not going to play in the 21st-century economy." ***–Grant Gross***

50% Consumers who, if shopping for a tablet, would choose the iPad Mini over the Nexus 7, Kindle Fire HD or Nook HD. EyeTrackShop

Microsoft



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Chris Brenzel, situation unit leader, U.S. Forest Service

U.S. FOREST SERVICE

Modernizing Map Distribution

BY STEPHANIE OVERBY

THE PROJECT :: Implement a mobile map application for U.S. Forest Service firefighters and emergency-situation units to use in the field and for tactical planning.

THE BUSINESS CASE :: As situation unit leader for the U.S. Forest Service, Chris Brenzel oversees production and distribution of the maps (and fire-behavior assessments and weather forecasts) for his 52-person emergency-response team and the camps of 2,000 to 5,000 federal firefighters responding to disasters across the country. While the map-distribution process had improved since the days of cutting up topographic maps from the U.S. Geological Survey, taping them together and running them through the photocopier, it remained labor- and paper-intensive, with Brenzel producing up to 150,000 map pages a day. Because of the time required for printing, the deadline for editing the maps was 9 p.m. the night before a shift. With fast-moving wildfires, the maps distributed to firefighters at 6 a.m. were already antiquated.

FIRST STEPS :: Brenzel looked at several digital display options and selected Avenza's free PDF map app for its ease of use, display quality and clean functionality. He and his team tested the app for two months over the summer on an iPad purchased with Brenzel's own money (the federal government provides only one rented tablet per situation unit) while responding to incidents at the Cleveland National Forest in San Diego. Brenzel's team compared notes with other situation units experimenting with mobile apps before having others, including the firefighters, download the Avenza app on their personal devices in August. Although Brenzel uses Esri's GIS mapping software, not Avenza's MAPublisher, to build his maps, pushing them to the app as PDFs is as simple as checking a box before export. "We can make edits to the maps up to a half-hour before the morning briefing," says Brenzel, a former fire captain. "It gives us what they call in the military a better common operating picture."

That was clear when Brenzel and his team were coming off of a 14-day shift fighting the 41,983-acre North Pass Fire in the Mendocino National Forest last summer. "The biggest benefit was using it to brief the team [on the next shift]," says Brenzel. "We were all in the helicopter [overlooking the forest] and it can be disorienting up there. Everyone was able to take out their tablets and look at the custom map as we went over our concerns and what issues we were leaving for the other team. It made for a smooth transition."

There are currently 2,000 users of the app, and Brenzel expects that number to triple this year as his unit starts chasing the fire season from late February to early November. "We're also starting to work with the battalion chiefs making maps of the forest for the day-to-day project work that we do when we're not on fire," such as creating community defense fuel breaks, where people remove vegetation around the forest to stop a fire's spread and protect homes.

WHAT TO WATCH OUT FOR :: Avenza has not yet introduced its Android app, so Brenzel had to implement a different map distribution app for half of his users. He also had to figure out a stable method of distribution since most federal sites use protected intranets. Ultimately, he created a public folder in DropBox and embedded QR code functionality into the Avenza app so users scan the code to pull up the latest maps.

Stephanie Overby is a freelance writer based in Massachusetts.

51% Customers who say they expect restaurants to integrate tech such as touch-screen devices into the ordering process. Technomic

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A Data Center Survivor

Avnet's facility evolved over 25 years to handle petabytes of data and embrace green IT

BY STEPHANIE OVERBY

When Brad Kenney joined the IT group at Avnet in 1987, the electronics distributor's newborn data center was populated by mainframes, data capacity was measured in gigabytes, and the company owned five servers. Twenty-five years later, Kenney is vice president of enterprise infrastructure and that data center houses 1,700 servers, maintains 1.2 petabytes of data, and is cooled by a cutting-edge, environmentally friendly HVAC system.

The Phoenix data center's history highlights some of the tremendous technology changes over the years. "[In 1987] we had nine megabytes of bandwidth per second, and it cost the company $500,000 a year," says Steve Phillips, Avnet's senior vice president and CIO. "You can get that on your 4G smartphone today. And no one's spending half a million dollars for it." (Today the data center supports bandwidth of 2.2 gigabytes a second.) ▶▶▶

Avnet CIO **Steve Phillips** says his data center has kept pace with a fast-growing company and uses energy-efficient technologies that will save Avnet $18 million a year.

PHOTO BY DAVID SCHMIDT

It's also a reflection of Avnet's corporate growth. Over that last quarter century, Avnet's data center has scaled up as the company went from $1.5 billion in revenue and 9,500 employees to $25.7 billion in revenue and more than 17,000 employees. Over the past year alone, Avnet has acquired and is integrating 14 companies into the IT fold.

Yet as data center capacity has increased 30,000 percent, power consumption is just three times what it was in the 1980s, thanks in part to recent energy-saving initiatives such as virtualization, a new data-storage-management system, a script for system hibernation, green lighting and a cooling system that uses air from the Sonoran desert.

Those moves are projected to save $18 million annually and avoid a multi-million dollar power build-out. Some of those savings are reinvested in Kenney's group. "That makes it a constant point of focus," says Phillips. "They can see the benefit that they get if they reduce that power bill."

While green technology has advanced, other issues—like managing storage demand—remain tricky. "The cost of storage has gone down over the years. But there's a tremendous need for data, and we have to be good about how we manage that," the CIO says. Demand is only increasing as employees use more video, says Phillips.

For now, it's more cost-effective to keep storing everything, says Phillips, but eventually Avnet will have to deal with purging the data stores.

At a time when many think of IT infrastructure as a utility, Phillips confidently calls his data center a strategic asset—one that he's not likely to outsource anytime soon.

"There are very good reasons other companies treat infrastructure as a commodity," says Phillips. "To me, the value of a data center is not in the hardware or the software. It's in the people behind it. And we think the people that care most about the Avnet data center are Avnet employees."

That doesn't mean the heat is off the infrastructure group in the future.

"It's going to be a big challenge. All companies need to be efficient," Kenney says. "The technology will continue to change and the cloud is going to continue to evolve. We're going to have to continue to find new and better ways to be efficient, otherwise someday it will make strategic sense to partner with someone else."

Stephanie Overby is a freelance writer based in Massachusetts.

Taking BYOD Global

BY TOM KANESHIGE

Only a few hundred of Ingram Micro's 16,000 employees had opted in to its new bring-your-own-device (BYOD) program when its corporate cellphone contracts came up for renewal. The company decided not to sign. Instead, it abruptly stopped issuing corporate BlackBerrys to U.S. employees, essentially making BYOD mandatory.

Now the global distributor of IT products wants to take that policy worldwide, requiring that more than 4,000 smartphones in some 40 countries become BYOD.

A Legal Muddle: Taking the rollout global has led to a legal quagmire, as the BYOD policy had to be examined country by country. Ingram Micro project manager Jason Conner spent countless hours meeting with HR, finance and legal, hashing out issues such as smartphone stipends and privacy.

"The technology part was pretty easy compared to the rest of it," Conner says. The company uses MobileIron's mobile-device management software to handle tasks such as remote deployment, configuration and enforcing security policies.

Privacy has been a major sticking point because the laws governing it vary widely from region to region. In Europe, for example, privacy is paramount, protected by a complex web of regulations. But in Asia, there's no real expectation of privacy, says Stanley Li, CEO of Netswitch, so laws are looser.

Ingram Micro retains the right to wipe corporate data from personal devices. Conner expected the legal department to push for more visibility into the content on the device, but he found the opposite was true–legal didn't want the liability that comes with seeing personal data. "Personal data, to legal, is like toxic waste–they don't want to touch it," he says.

The Human Factor: Surprisingly, workers weren't upset about being asked to buy their own smartphones–most people either already owned one or saw this as their chance to get the device they'd been eyeing. "It was less about the [cost of] the device than the variable cost," Ingram Micro CIO Mario Leone says. "Would the reimbursement cover my usage? Did I get the right plan that will balance my business and personal needs?"

Leone wanted to help people find the right plan without dictating how they could use their phones, so he compromised: He let telecom providers come to the offices and pitch programs to employees during lunch.

"I honestly expected several years for the uptake on this, but BYOD has gone a lot faster and a lot deeper" than predicted, Leone says. "We had to deal with this because, like it or not, it was a tidal wave coming at us."

Tom Kaneshige is a senior writer for CIO.com.

Metrics for IT

Apptio's on-demand software helps IT departments run like a business, but competition has intensified

BY NANCY WEIL

THE COMPANY

Apptio

Headquarters: Bellevue, Wash.

Employees: 350

Revenue: Private

CEO: Sunny Gupta

What They Do: Apptio provides on-demand software that helps CIOs run IT like a business, by managing and communicating the cost, quality and value of IT services. Applications include IT planning, service costing, chargebacks, service performance and benchmarking.

THE PITCH

Apptio calls itself the "technology business management," or TBM, company for any organization that has a technology function, says Sunny Gupta, co-founder, president and CEO. Its customer roster includes large, multinational enterprises in markets including financial services and the hospitality industry, and IT vendors such as Cisco and Microsoft.

Apptio's on-demand TBM software applies business metrics to IT, taking the best practices of financial and performance management and applying them to technology spending and running IT departments. Previously, IT financial management was handled mostly through home-grown systems and spreadsheets–and it still is at many companies.

Apptio's launch in 2007 proved to be fortuitous timing, because transparency, closely tracking costs and proving ROI took center stage in the wake of the global financial crisis, says Dennis Callaghan, an analyst at 451 Research.

THE CATCH

"Their competition has really intensified in the last few years," Callaghan says. VMware and BMC have made acquisitions to compete in IT financial management, while Apptio also faces niche competitors such as ComSite and Costnomics.

"If you look at the expertise they have [at Apptio], and if you look at how much funding they've raised, there's no reason to believe they won't be able to withstand the challenges they're facing. But it's worth noting that they're facing a lot more challenges today than when they launched, and that can slow them down," Callaghan says.

Apptio also must educate CIOs about its TBM approach, says Rob Webb, a former CIO of Hilton, an Apptio customer. "Fundamentally, the vision of Apptio to leverage cloud-based services to run IT as a business is absolutely critical for all CIOs these days," he says, but the problem is that CIOs don't have a curriculum for managing IT that way. "Apptio has a challenge of raising awareness [of the idea] that the best way to do this is more holistic and consistent" than relying on spreadsheets and home-grown approaches, he says.

Gartner analyst Jim McGittigan echoes that viewpoint, adding that it's important for Apptio to make CIOs understand the advance work that has to go into implementing TBM. "Some people think it's easier to do than it actually is," he says. "It's not six to 10 weeks and you implement a tool and it's fine." Instead, he says, it takes six to 10 months.

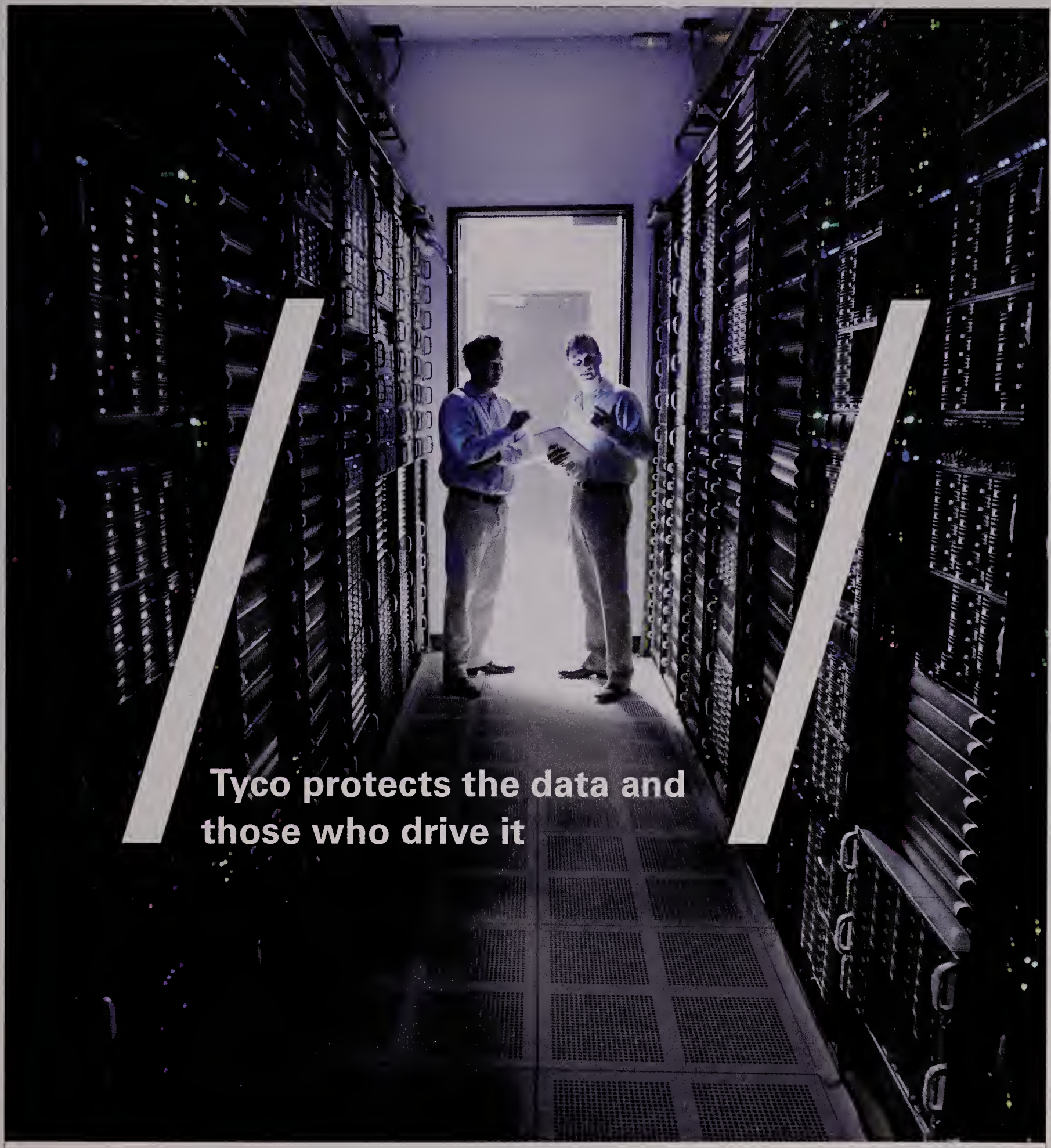
Apptio's aggressive marketing and promotion has left it vulnerable to competitors' claims that it is more focused on those areas than on software development. "With growth comes the fact that you tend to have a marketing-oriented company with an aggressive sales force that may or may not understand the value proposition," McGittigan says.

THE SCORE

While Apptio faces growing competition, it needs to focus on managing growth and making sure its sales teams are tech-savvy. The company maintains that it is up to those challenges, thanks to a seasoned leadership team and a corporate culture whose top value is, in Gupta's words, "creating wildly successful customers."

The timing of Apptio's launch, plus robust venture capital funding, are helping it stay a leader in the TBM market, analysts say.

Nancy Weil is managing editor at IDG News Service.



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Paul Stamas, VP of IT at Mohawk, says an entrepreneurial culture and a smart approach to experimentation led to Mohawk's successful diversification into online businesses.

Disrupt or DIE

Your company's business model is threatened from inside and out. What should CIOs do about that?

BY KIM S. NASH

CIOs are learning some hard lessons about how industry leaders can be knocked off by out-of-the-blue competitors. Look at that quintessential business disrupter, Netflix. In 1997, the upstart launched a fast, convenient DVD-by-mail rental service that relied on highly efficient supply-chain systems, well-situated distribution centers and, of all things, the U.S. Postal Service. Mixing existing technology and service tools in a new way let Netflix create a fresh business model in video rental that eventually displaced Blockbuster, Hollywood Video and other stalwarts that relied on physical stores.

Today, however, Netflix struggles to maintain its supremacy. Lots of companies with streaming video have invaded its territory, including YouTube, Hulu and Cablevision. Perhaps the biggest threat, in part because there appear to be no bounds to its ambition, is Amazon. The $48 billion e-commerce company offers streaming and downloadable video for many devices—exactly the future Netflix imagines for itself.

Netflix is aware of these challenges and is trying to boost its streaming business and revamp for an all-digital market. But new pricing plans and an attempt to separate its by-mail and streaming subscriptions in 2011 got customers mad. The company admits in recent financial filings that it has seen "higher than expected customer cancellations" and that those customers aren't coming back quickly. Churn for 2011 was 4.9 percent, up from 3.8 in 2010. Vehement customer reaction led Netflix to reverse changes to its subscription business, though it stood firm on its controversial pricing policy.

We don't know how the Netflix story will end. But as so many business models in so many industries come to depend on IT, CIOs need to heed the law of the business jungle: Disrupt or be disrupted. It's a familiar pattern—disrupter moves in, flies high, then becomes disrupted as markets and technologies evolve. Competitors emerge from unexpected places. Some customers vacate to more appealing companies while others resist your attempts to change. Every business model must eventually come to an end, but the trick is to recognize your own impending demise—plan for it, even.

CIOs who anticipate trouble can show colleagues how to avoid it, or fight it when it comes, says Gartner analyst Dave Aron. "You want to escape conventional thinking."

PHOTO BY STEVEN VOTE

To disrupt worn habits in a company or in an industry, CIOs have to recognize when a competitive weapon can be a weakness and develop peripheral vision to spot unlikely competitors. Also critical: Overcome the corporate diseases of myopia and inertia, which lead to certain death.

Weapon Becomes Weakness

Everyone wants to have a technology so innovative or a business approach so inventive that it pushes you to the moon. But competitive weapons wear out.

For years, Avon and its famous Ladies in pink have faced down forces trying to disrupt the classic direct-sales business model, notably e-commerce. While door-to-door encyclopedia salesmen have died out, Avon Products has hung on. But maybe not for much longer. Avon has spent $782 million on restructuring projects dating back to 2005, and still its profits, ominously, have sunk to their lowest level in recent years, even as total sales have increased.

"Avon has been putting out fires over the last several years, trying to manage disruptions as they've arisen, rather than getting out in front of the issues," says Erin Lash, a financial analyst at Morningstar.

With Avon stock at its lowest point in five years, rival Coty attempted a hostile takeover last year. "It's hard to imagine a U.S. company in worse shape," according to financial research firm 24/7 Wall St., which predicts 2013 will be the year Avon falls.

CEO Sheri McCoy insists that Avon's financial troubles do not mean we're witnessing the end of the company's business model. She and fellow senior leaders are trying to pull Avon into modern times without dismantling direct sales, where a representative visits homes, personally delivers catalogs to customers, or holds product parties. It's not efficient, but it is how the 127-year-old company climbed to success. It's also how McCoy, who joined a year ago, plans to conquer emerging markets, such as Brazil and Russia. There, cosmetics aren't sold widely in retail stores and sales representatives are viewed as trusted sources.

Avon's problem, McCoy says, isn't its six million Ladies. Instead, it's a combination of the wrong product mix in some regions, some ineffective pay incentives and, at various times, trouble with an ERP implementation that has so far taken eight years. As she recently told analysts: "The challenges Avon is facing developed over time, not overnight. We still have a tremendous amount of work to do to address issues Avon has wrestled with for years."

Problems with a supply-chain module rolled out in Brazil hurt financial results there, the company has acknowledged; Avon has been working to implement a global ERP system since 2005 and expects the project to stretch into "the next several years," according to its latest annual report. In the next three

Who's Disrupting Who?

Sometimes tech-based startups make deals with the very industry players they're trying to disrupt

Part of what fuels entrepreneurs is the belief that they're doing something different than what's been done before. But those inventive scrappers also need other forms of fuel to launch a company, including money, influence and experience. Often those tools come from partnerships with established companies in the very industry that the startup wants to disrupt.

Recyclebank uses sensors and GPS technology to track how much plastic, paper and other material people recycle, then gives them points to redeem at 4,000 businesses. The young company says the gamification of recycling encourages individuals and towns to change their behavior–once they sign up. Convincing them to join can be slow going, says Javier Flaim, chief sales and marketing officer at Recyclebank, and wading through municipal bureaucracies and contracting procedures can take years.

But a relationship with the $13.2 billion Waste Management gives Recyclebank access to the giant's 20 million customers. Recyclebank also gains inroads into regions across the country where Waste Management is already established, as well as an undisclosed financial investment. Waste Management gets a ready-made, consumer-friendly mobile app and website to boost its recycling reputation.

The symbiotic relationship doesn't threaten Recyclebank's independence, Flaim says. Waste Management's marketing team and Recyclebank's IT team work closely together to make sure customer data and reward points are accurate and shared, he says.

Upstarts in other industries, however, aren't so friendly with established players. A financial services company called Simple launched in May, offering real-time Web and mobile monitoring tools to give customers frequent updates about their personal finances. With Simple's website and mobile apps, customers receive alerts about account balances and spending levels. They can also attach photos and notes to transactions records, allowing them to more readily understand their financial behaviors. A "Safe to Spend" figure shows not just an account balance snapshot but how much money is actually available after factoring in pending transactions, scheduled payments and personalized goals, such as saving for vacation.

A customer who is kept apprised about his money will use it more carefully, says founder and CEO Josh Reich, but traditional banks don't encourage that behavior. Simple's customers transfer their funds to Simple's commercial bank partner, Bancorp, which has no branches and serves as the regulatory and compliance back end to Simple's customer experience front end.

Reich relishes disrupting the banking business. Banking should be like an easy-to-use utility integrated into your life, he says, not "an adversarial struggle." *–K.S.N.*

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years, the company plans to spend between $150 million and $200 million on IT, including on systems for ordering and billing, analytics and mobile applications.

Donagh Herlihy, CIO and head of e-commerce, declined to be interviewed. But in a presentation at *CIO*'s Leadership Event in 2011, he noted that reducing turnover among representatives is a major goal of his technology work. Improving the online ordering system will be lucrative for Avon, he said, because 15 percent of online reps order two or three more items when presented with tailored promotions on the screen. He also outlined plans to incorporate social networking into how representatives find and keep customers.

The personal touch of modern Avon representatives depends on IT—they need it to place orders, track customers and settle finances, Lash says. Technology problems, she explains, are dangerous because many Avon representatives also sell other products. "They won't necessarily push Avon products if they aren't having a good experience with Avon."

It's easy for an outsider to diagnose problems. But insiders have to fix them, and sometimes that's impossible, says a former IT executive at Circuit City, which once dominated the consumer electronics retail market, only to file for bankruptcy protection in late 2008. Circuit City was the original big-box electronics retailer—it was 60 years old at the time of its death-by-liquidation—and at one point it built a proprietary point-of-sale (POS) system that was used for 20 years. Senior leaders saw it as creative and not easily copied by competitors, says the former IT executive, who asked not to be named. The homegrown POS system did deliver competitive advantage for the first 10 years. Then it became onerous to support and slipped behind packaged POS systems in functionality, the executive says.

"We didn't evolve fast enough into a very fast-changing and dynamic business."

-A FORMER I.T. EXECUTIVE AT CIRCUIT CITY

Meanwhile, rival Best Buy had upgraded its POS system and aggressively pursued a "grocery-store" approach to selling electronics, says Alan Wurtzel, son of Circuit City's founder and a former CEO and then board member at the company. That is, while Circuit City relied on knowledgeable commissioned sales staff, Best Buy took a less expensive approach, letting customers shop by themselves, Wurtzel says. Although Circuit City eventually switched to a lower-cost sales method, it was too late. For too long, he says, senior leaders "stubbornly stuck with the old model. That did us in."

As the former IT executive puts it, "We didn't evolve fast enough into a very fast-changing and dynamic business." He left the company a year before it fell. "It pained me," he says. In bankruptcy, Circuit City, once a $12.4 billion company, sold rights to its brand and domain names for a scant $6.5 million to Systemax, an electronics retailer that runs e-commerce sites.

Now Best Buy, like other big-box stores, faces disruption from the "showrooming" effect, where physical stores become a place for consumers to play with products before buying from a different, usually cheaper, outlet online.

Avoid Corporate Diseases

Myopia and inertia can spread through overall corporate culture but also into the habits of individual CIOs. Many CIOs think of their job, aside from leading technology, as fixing and honing business processes, says Gartner's Aron. But confining your scope that way, he says, guarantees an unremarkable tenure. If you're concentrating on how to squeeze steps out of an existing process, you'll never come up with an idea that smashes a spent business model or uncovers a brand new one. And best practices? By definition, they aren't innovative; they're tried and true.

One technique to shake away establishment thinking is to borrow from other industries. For example, GlaxoSmithKline (GSK), like other pharmaceutical companies, sees that the traditional drug-discovery model—years of expensive research to find a needle-in-haystack blockbuster medication—is too slow and costly to maintain. When a drug patent expires, the profits on that pill essentially dry up. If there's no new drug to replace it, company earnings can fall off a so-called patent cliff.

GSK wants to interrupt that cycle by figuring out better ways of using analytics to find promising research paths in its gargantuan cache of scientific and consumer data. To jump-start its efforts, GSK looked outside the pharmaceutical industry to find a company that was good at handling big data problems, says Aron, who has studied GSK's strategy. The unlikely partner? McLaren Group, a Formula 1 race car team.

McLaren puts sensors on its cars that transmit data about 200 metrics to members of the pit crew, who use real-time predictive analytics to help drivers make fast, nuanced decisions during races. The proprietary analysis tools also help engineers adjust the car for the next race. GSK wants to apply the same principles to decisions about inventory and pricing, for example. "GSK is using innovation that has already happened in one industry but may be new to its own," Aron says.

Sometimes an upstart redraws an existing industry, the way Zipcar and Uber have used IT to claim territory in car rental and taxi services, respectively. Simple Finance Technology, a startup, aims to take on financial services with Web and mobile banking that bypasses mainstream banks. Disgusted by late fees and overdraft penalties, founder and CEO Josh Reich wants to give customers "constant situational awareness" of their personal finances. Customers ditch their current bank for an account with Bancorp, Simple's partner. They also sign up to use Simple's Visa card for purchases. Simple makes money on each Visa

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OfficeMax CIO **Randy Burdick** says the integration of physical, Web and mobile shopping systems–that is, omnichannel retailing–is critical to the company's future.

PHOTO BY BOB STEFKO

transaction and on interest margins that it splits with Bancorp.

A traditional bank doesn't want to push such specific real-time data to customers, Reich contends, for fear of losing late fees and overdraft penalties by prompting customers to better mind their accounts and habits. "When you make money from fees or from customers making mistakes, you benefit when customers don't understand their finances."

Wal-Mart, too, sees room for itself in financial services, in a case where a giant in one industry disrupts another. In recent years, Wal-Mart tried to enter financial services through established channels by applying for a bank charter and trying to acquire a bank, but it was denied by regulators. After its attempt to run a tried-and-true play met with failure, the retailer was spurred to be more inventive. Late last year, Wal-Mart launched Bluebird, a financial service with American Express that lets consumers make deposits, withdraw cash and pay bills. It is also seeking patents for mobile-payment technology.

Develop Peripheral Vision

For all the talk of how companies can use IT to create new business models, nothing new actually gets created unless the company has an entrepreneurial spirit, says Paul Stamas, vice president of IT at Mohawk, an 81-year-old, family-owned paper manufacturer. It also helps, he adds, to experience crisis.

Mohawk has seen a perfect storm of developments: people using far less paper because of digitization, strong and growing environmentalist trends favoring living trees over dead paper, and the migration of paper-making to other countries. "We had to do something radically different or we'd be out of business," Stamas says.

The company brainstormed about new business ventures that would stimulate demand for its core high-end paper. In 2010, Mohawk and a design firm called Rosebrook, Peters, Funaro launched Pinhole Press, a small online photo gift company akin to Shutterfly. Pinhole uses Mohawk's expensive specialty papers to produce items such as wedding albums. For two years, Mohawk helped grow the business and learned about selling online, then sold Pinhole last year for more than the original $1 million it spent to start it.

Mohawk, which has also invested in a small software company and a paper distributor in Germany, plans to incubate more businesses, Stamas says. "The CEO has looked to me and said, 'Start thinking about what's next. Institutionalize this.'"

Apart from an entrepreneurial culture, Stamas credits a smart approach to experimentation for Mohawk's successful diversification. The key, he says, is to augment what works (specialty paper) with related businesses (such as photo printing). "You can't walk away from who you are or what you did," he says, "but you need to evolve."

One way to compete when your position is threatened is to focus intently on a project to distinguish your company. At OfficeMax, that's omnichannel retailing, where physical, Web and mobile shopping systems are integrated. The goal is to let customers interact with the company any way they want while systems share pertinent data in the background. "It's really key to our future," says Randy Burdick, OfficeMax CIO. "We want to be best-in-class."

The decision to concentrate on omnichannel expertise came from the company's CEO and board of directors, Burdick says. OfficeMax comes in a perpetual third in the three-player market for office supplies, behind Staples and Office Depot. Meanwhile, competition from nontraditional outlets such as Target and Amazon has intensified, says Jim Barr, chief digital officer. "We take a broader view of the competition," Barr says. "We're all just a click away from each other. We have to pick our game up."

It Gets Complicated

Although business disruption is as old as business itself, one development that makes the current wave especially difficult to handle is the interdependency that has sprung up between many companies, says Jim Spitze, executive director of the Fisher CIO Leadership Program at the Haas School of Business at the University of California Berkeley. Some dependencies, he says, may need to be broken for a company to advance.

Mohawk, for example, used to turn over its paper products to distributors and had little or no interaction with end customers. Distributors don't or can't tell you about nuanced changes in the market, Stamas says. Without the ability to sense and respond to customers, "you're doomed to failure." The company decided to gut its distribution model so it could build closer relationships with customers and find out what they want, he explains. "We needed to learn."

"We had to do something radically different or we'd be out of business."

-PAUL STAMAS, VP OF I.T., MOHAWK

Netflix has created a complicated relationship with Amazon as partner and rival. The very technology Netflix has bet on—cloud computing—is supplied by Amazon. By the end of this year, Netflix expects to be Amazon's largest cloud customer, after Amazon's own retail operations. In its most recent annual report, Netflix calls out its IT relationship with Amazon as a critical risk factor. "[W]e run the vast majority of our computing on AWS [Amazon Web Services]. Given this, along with the fact that we cannot easily switch our AWS operations to another cloud provider, any disruption of or interference with our use of AWS would impact our operations and our business would be adversely impacted." Indeed, Netflix streaming service was disrupted Dec. 24 due to an AWS glitch. Netflix declined to make executives available for interviews.

Netflix adds an optimistic note for worried investors: "While the retail side of Amazon may compete with us, we do not believe that Amazon will use the AWS operation in such a manner as to gain competitive advantage against our service." Still, the video company knows that competitors can get in a snit, as it explains in that same filing. In 2010, Comcast, which is both an Internet service provider and a video competitor to Netflix, raised prices on Netflix technology partner Level 3 Communications for access to Comcast's network. "Given that much of the traffic being requested by Comcast customers is Netflix data stored with Level 3, many commentators have looked to this situation as an example of Comcast either discriminating against Netflix traffic or trying to increase Netflix's operating costs," the filing says.

"The intertwined nature of business models now will make the future interesting," Spitze says. CIO

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SOUNDING BOARD

Offshoring Revisited

There are still benefits to offshore outsourcing as long as you learn from previous missteps and manage the risks

LARRY PICKETT, PURDUE PHARMA

KEEP FRONTLINE I.T. PEOPLE IN-HOUSE

We continue to send development and infrastructure management work offshore because, in addition to the usual benefits of lower costs and scalable resources, our vendors act more like strategic business partners than mere IT service providers. They offer suggestions on improving our IT operations, and we bounce ideas off them to tap their industry experience.

Our success with offshoring has much to do with our conservative approach. We never outsourced our frontline IT activities, we retained system design and architecture in-house, and we protected our internal business-domain knowledge. We even kept help-desk operations local because our end users like to run into their help-desk guys in the cafeteria or have them physically come to their desk if they have a problem. ▶▶▶

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Larry Pickett, CIO, Purdue Pharma

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▸▸▸ **Outsourcing** Continued from Page 24

We also have a strong governance model to manage vendor performance, led by Vicki Heber, our manager of offshore services. She ensures that project requirements are sufficiently documented, including the performance levels we expect to see, and she leads conference calls with the vendor to ensure everyone is on the same page. Lastly, we established measurable service-level agreements and regularly review them with the vendor. This frequent communication ensures we identify and resolve problems quickly.

MARIE LEE, INTERVAL INTERNATIONAL

TREAT VENDORS LIKE EMPLOYEES

We have learned over the last few years how to manage the inherent challenges and mitigate the risks of offshore outsourcing. For example, we have found it difficult to offshore support for legacy systems due to limited documentation. It is challenging enough to communicate within our own onsite team, let alone one halfway around the world.

The secret to our success is two-fold. First, we established processes and rigorous standards to better communicate our expectations. Second, we expanded our vendor relationship to include quality assurance and testing services.

The challenge for a mid-market company is to choose the right outsourcing partner both in terms of size and culture. This helps ensure we are heard and our priorities are met.

Our blended rates have certainly gone up in the past few years, but this is by design. We pay for experience and compensate the vendor to minimize turnover. We have set up a rotation program to bring offshore personnel to the States to immerse them in our business and culture and reinforce the team experience. In addition, we periodically adjust our hours so that meetings fit their time schedule (in China). This gives our offshore resources the motivation and confidence to participate fully in our projects.

DEAN HAACKER, CIO AT LARGE

GAIN INSIGHT INTO EMERGING MARKETS

The quality of offshore resources has improved dramatically over the last decade. Granted, traveling around the world to visit these teams can still be an adventure, but continued investments in better roads, airports, and hotels make it much easier.

One of the best reasons for engaging offshore resources is the insight they can provide about the needs of their local markets. If your company is trying to grow in the same places where you employ offshore teams, these firms can be a great source of market intelligence.

Offshore outsourcing is not an all-or-nothing proposition. As the saying goes, figure out what you do best and outsource the rest. For many companies, customer-facing roles like enterprise architecture, program management, and business analysis are not good candidates for offshore outsourcing. That said, it would be a mistake to position your vendors as mere service providers; instead, look for ways to involve them as strategic business partners. I do not recommend relying on a single provider. Rather, consider a 70-30 split, where most of the work goes to a single provider, and a few other vendors provide niche skills and maintain competitive balance.

TAKE Note

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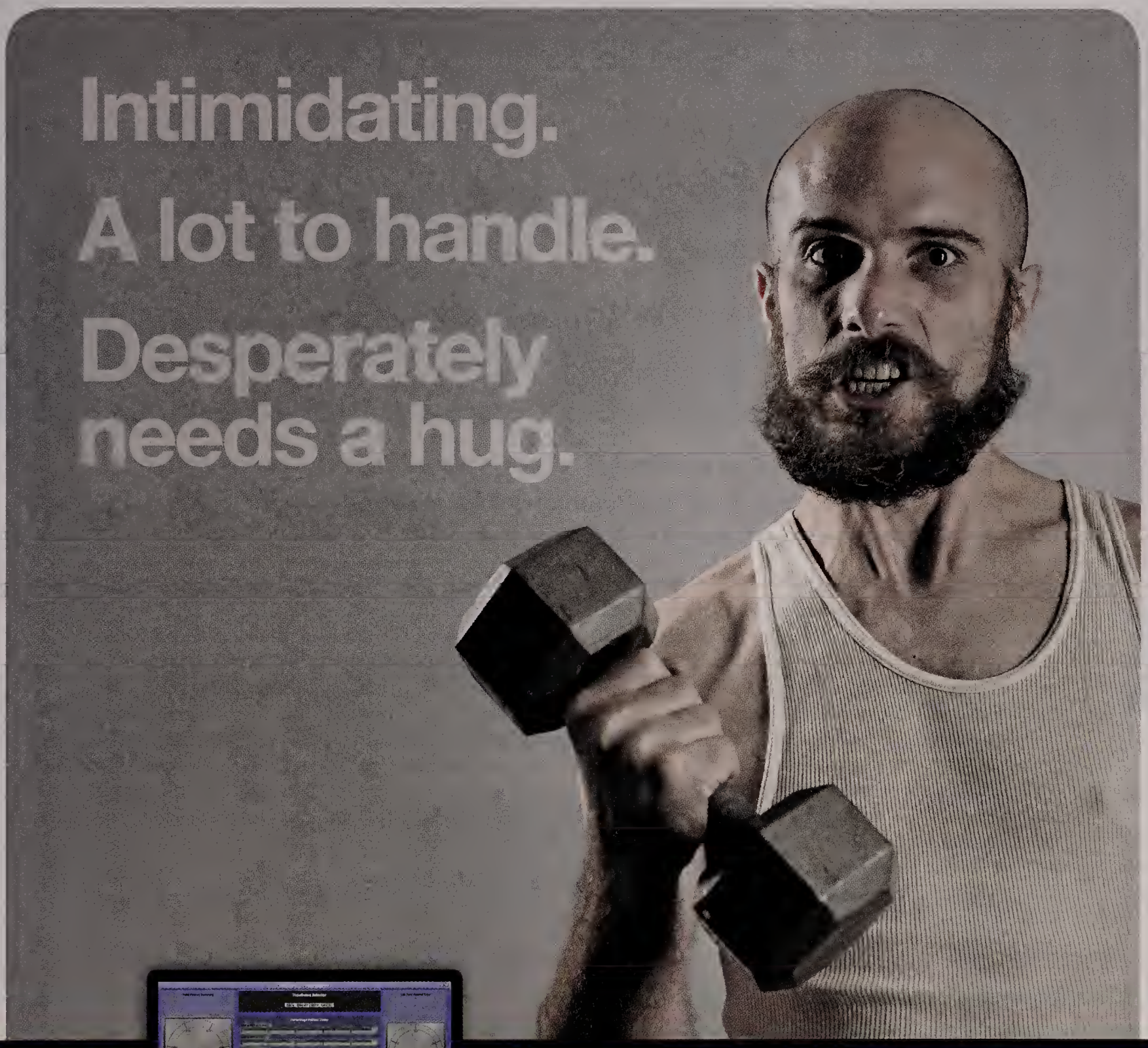

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The CIO at a global real-estate firm develops the IT team of the future

BY JESSE CARRILLO

In the past two years, I've shifted IT's focus away from cost containment and efficiencies and toward driving business growth. To accomplish that, my team has done a lot of work to operate at a strategic level.

I took over the CIO role in 2007, right before the recession. Like many other companies, Hines needed to focus on reducing costs and maintaining the bottom line without making large reductions in workforce. Then, as the economy began to recover, it was the right time to transform the IT function into a strategic unit focused on growing the business.

One of the first things I did was merge the infrastructure and application development teams under a member of my leadership team. Finding the right leader was essential, and I was fortunate to find someone with a consulting background who considered the infrastructure and applications viewpoints equally, without favoring one or the other. It's not a traditional structure, but it ensured that infrastructure wasn't an afterthought—it was part of the conversation when deploying systems and applications.

For instance, when we recently upgraded our intranet to SharePoint 2010, the two teams were in the same meetings and could discuss both the redesign of the user interface and the integration with database systems, along with the performance requirements for the servers and network. The result is a fine-tuned intranet, delivered on time to Hines employees, who can better collaborate with each other to meet strategic business goals.

I groomed my leadership team to be strategically oriented, and more importantly, I chose people who can represent me. Any one of my four direct reports can travel to business units around the world to communicate the value of technology to drive business growth. They are like an "army of me," an extension of the CIO.

Of course, the IT team of the future includes more than just the CIO and leadership team. The entire staff needs to be the face of IT. To build up their skills, I partnered with the internal training department to conduct mandatory sessions on communications, management and soft skills. Change does not always come naturally, but the staff knows the importance of being the face of IT and are starting to embrace this new approach.

The biggest obstacle is enabling team members to be strategic when they still have operational responsibilities. We have started tracking activities to make sure we're working on the most important tasks, and we've implemented additional programs to relieve some of the daily tasks. If you don't make the time, then your team members won't be able to improve their skills.

I'm also focusing two levels down to make sure the management team is coaching staffers to be strategic in thought and action, and to build this expectation into their annual review process.

You have to find your superstars at all levels of the organization and then allow them to flourish. I only grow as a leader when I elevate my staff to think and interact at a higher level than they did yesterday or last year. And the only way they can do this is if they are allowed and encouraged to do so.

Jesse Carrillo is senior vice president and CIO at Hines.

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About Face

Despite its popularity, online shopping has its drawbacks, sometimes leaving customers disappointed or surprised when their purchases arrive. This is especially true when buying makeup. How do shoppers figure out the right product for their complexion, color and skin type without touching it or trying a sample? Online makeup store P.S. Beauty, which launched in September, offers customers a free video chat with makeup consultants to help match consumers with the right products. When customers visit *www.thepsbeauty.com*, they complete a questionnaire about their skin type, eye color and preferred products. Then they are paired with a video consultant who conducts makeup demonstrations and recommends products. P.S. Beauty sells about six items per transaction, says company co-founder Caroline Dahllof, and less than 10 percent of them get returned. The video chat connection, she believes, makes all the difference. "By using this technology, we are making the shopping experience more personal and simpler." *–Lauren Brousell*

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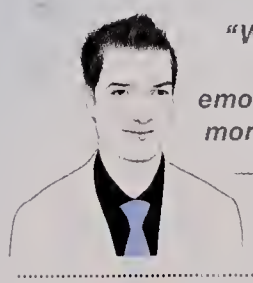

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